



Postdoctoral Position – Plant/Microbe Functional Genomics DOE Joint Genome Institute

The Joint Genome Institute (JGI) has an exciting postdoctoral opportunity to participate in research directed at understanding complex plant-microbial interactions at their most fundamental level. JGI has been instrumental in driving collaborative science towards a better understanding of plant microbial communities. In coordination with a group including Benjamin Cole, Henrik Scheller, Axel Visel, Diane Dickel, Ronan O'Malley, the selected candidate will utilize spatially resolved, single-cell characterization strategies to better understand how colonizing microorganisms impact plant tissues and cell types. The candidate will use established model species (e.g. *Arabidopsis thaliana*, *Brachypodium distachyon*, *Medicago truncatula*) and known plant-colonizing microbial species to study various facets of plant-microbial interaction, including colonization, growth promotion, and the impact on carbon sequestration. These efforts will ultimately inspire bioengineering strategies for bioenergy crop improvement. This project will leverage the varied sequence-based science and computational capabilities at JGI, as well as new or existing collaborations with scientists at Lawrence Berkeley Laboratory, the Joint Bioenergy Institute, and external groups. This position will be located at the Integrated Genomics Building, a brand-new research facility on the Lawrence Berkeley Lab campus.

Specific Responsibilities:

- Develop and utilize multiple single-cell based methods for studying plant/microbial interactions.
- Develop computational analysis strategies for analyzing multifaceted plant/microbial single-cell datasets
- Work with other JGI/LBL scientists and external collaborators on functional genomics analyses on bioenergy-relevant crops
- Analyze and summarize data and present findings at internal lab meetings and scientific conferences.
- Publish in peer-reviewed journals and contribute to scientific research papers and reports.

Qualifications

- Ph.D. in biology, microbiology, botany, genetics, genomics, computational biology or a related field.
- Solid understanding of general plant biology, plant cell and/or developmental biology, and plant/microbe interactions.
- Experience with microscopy, histology and/or cell fractionation a plus.
- Experience in computational data analysis
- Experience with molecular biology techniques, such as DNA/RNA extraction, and analysis methods.
- Strong interest in genomic and functional genomic questions and in the use of computational strategies to derive biological insights from sequence data.
- Demonstrated scientific productivity through publications in relevant peer-reviewed journals.
- Excellent oral and written communication skills.

This is a 1 year postdoctoral appointment with the possibility of renewal based upon satisfactory job performance, continuing availability of funds and ongoing operational needs. Salary for Postdoctoral positions depends on years of experience post-degree. Salary will be predetermined based on student/postdoctoral step rates. This position requires completion of a background check. Work will be performed at the DOE Joint Genome Institute (JGI) – Lawrence Berkeley National Laboratory, 1 Cyclotron Road, Berkeley, CA 94720. Informal inquiries regarding this position should be directed to Benjamin Cole: BJCole@lbl.gov.

To apply, please go to the [job posting](#) and follow the online instructions to complete the application process.

Berkeley Lab addresses the world's most urgent scientific challenges by advancing sustainable energy, protecting human health, creating new materials, and revealing the origin and fate of the universe. Founded in 1931, Berkeley Lab's scientific expertise has been recognized with 13 Nobel prizes. The University of California manages Berkeley Lab for the U.S. Department of Energy's Office of Science.

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